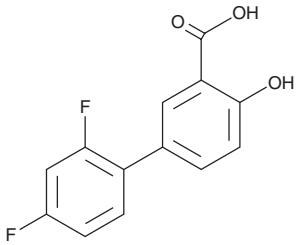
PRODUCT INFORMATION

Diflunisal

Item No. 19187

CAS Registry No.:	22494-42-4
Formal Name:	2',4'-difluoro-4-hydroxy-[1,1'-biphenyl]-3-carboxylic acid
Synonyms:	5-(2,4-Difluorophenyl)salicylic Acid, MK-647
MF:	$C_{13}H_8F_2O_3$
FW:	250.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 228, 253 nm
Supplied as:	A crystalline solid
Storage:	Room temperature
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Diflunisal is supplied as a crystalline solid. A stock solution may be made by dissolving the diflunisal in the solvent of choice. Diflunisal is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of diflunisal in ethanol and DMSO is approximately 25 mg/ml and approximately 30 mg/ml in DMF.

Diflunisal is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, diflunisal should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Diflunisal has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Diflunisal is a non-steroidal anti-inflammatory drug (NSAID) that inhibits both COX-1 (IC_{50} = 113 µM) and COX-2 (IC_{50}s = 8.2 and 134 µM for human whole blood assay and human-modified whole blood assays, respectively).[1] Peak plasma levels are achieved within two hours, with little metabolism before excretion in the urine.[2] The terminal plasma half-life is approximately eight hours.[2]

References

1. Warner, T.D., Giuliano, F., Vojnovic, I., *et al*. Nonsteroid drug selectivities for cyclo-oxygenase-1 rather than cyclo-oxygenase-2 are associated with human gastrointestinal toxicity: A full *in vitro* analysis. *Proc. Natl. Acad. Sci. USA* **96**, 7563-7568 (1999).
2. Tempero, K.F., Cirillo, V.J., and Steelman, S.L. Diflunisal: A review of pharmacokinetic and pharmacodynamic properties, drug interactions, and special tolerability studies in humans. *Br. J. Clin. Pharmacol*. **4 Suppl 1**, 31S-36S (1977).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM